### FEDERAL OPERATING PERMIT

## A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO The University of Texas at Austin

AUTHORIZING THE OPERATION OF Hal C. Weaver Power Plant The University of Texas at Austin Colleges

#### LOCATED AT

Travis County, Texas Latitude 30° 17' 12" Longitude 97° 44' 8" Regulated Entity Number: RN102533510

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: _	<u> 093</u>	Issuance Date:	
For the Co	ommissio	n	

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#### **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

### Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

- 1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
- E. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 2 (Emissions Banking and Trading of Allowances) Requirements for an electric generating facility authorized under 30 TAC Chapter 116, Subchapter I:
  - (i) Title 30 TAC § 101.332 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.333 (relating to Allocation of Allowances)
  - (iii) Title 30 TAC § 101.334 (relating to Allowance Deductions)
  - (iv) Title 30 TAC § 101.335 (relating to Allowance Banking and Trading)
  - (v) Title 30 TAC § 101.336 (relating to Emission Monitoring and Compliance Demonstration and Reporting)
  - (vi) The terms and conditions by which the emission limits are established to meet the quantity of allowances for the electric generating facility are applicable requirements of this permit
- F. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
  - (i) Title 30 TAC § 101.372 (relating to General Provisions)
  - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
  - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
  - (iv) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)

- (v) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
- 2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
  - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
- 3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
  - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed either before or after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
    - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
    - (ii) Title 30 TAC § 111.111(a)(1)(E)

- (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
- (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
  - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
  - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
  - (3) Records of all observations shall be maintained.
  - (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25

mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

#### (5) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
- (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC  $\S$  111.111(a)(7)(A), complying with 30 TAC  $\S$  111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC  $\S$  122.146:
  - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
  - (2) Records of all observations shall be maintained.
  - (3)Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
  - (4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC  $\S$  111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader
- C. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:
  - (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
  - (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
  - (iii) For a source subject to 30 TAC  $\S$  111.111(a)(8)(A), complying with 30 TAC  $\S$  111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC  $\S$  122.146:
    - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
    - (2) Records of all observations shall be maintained.

(3)Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eves. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

#### (4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- F. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
  - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
  - (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
  - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
  - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
- 5. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records

sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

#### **Additional Monitoring Requirements**

6. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **New Source Review Authorization Requirements**

- 7. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
  - A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield
- 8. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

- The permit holder shall maintain records to demonstrate compliance with any 9. emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).
- 10. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
  - A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit
  - B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
  - C. Requirements of the Electric Generating Unit Standard Permit for facilities located in the East Texas region based on the information contained in the registration application.
  - D. Boiler Standard Permit

### **Compliance Requirements**

- 11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
- 12. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:
  - A. The permit holder shall comply with the compliance schedule as required in 30 TAC § 117.9300 for electric utilities in East and Central Texas.
- 13. Use of Discrete Emission Credits to comply with the applicable requirements:

- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
  - (i) Title 30 TAC Chapter 115
  - (ii) Title 30 TAC Chapter 117
  - (iii) If applicable, offsets for Title 30 TAC Chapter 116
  - (iv) Temporarily exceed state NSR permit allowables
- B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
  - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
  - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
  - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
  - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
  - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

### **Protection of Stratospheric Ozone**

- 14. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:
  - A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

#### Temporary Fuel Shortages (30 TAC § 112.15)

- 15. The permit holder shall comply with the following 30 TAC Chapter 112 requirements:
  - A. Title 30 TAC § 112.15 (relating to Temporary Fuel Shortage Plan Filing Requirements)
  - B. Title 30 TAC § 112.16(a), (a)(1), and (a)(2)(B) (C) (relating to Temporary Fuel Shortage Plan Operating Requirements)
  - C. Title 30 TAC § 112.17 (relating to Temporary Fuel Shortage Plan Notification Procedures)
  - D. Title 30 TAC § 112.18 (relating to Temporary Fuel Shortage Plan Reporting Requirements)

#### **Permit Location**

16. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

#### **Permit Shield (30 TAC § 122.148)**

17. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

### **Attachments**

**Applicable Requirements Summary** 

**Additional Monitoring Requirements** 

**Permit Shield** 

**New Source Review Authorization References** 

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Applicable Requirements Summary	18

Note: A "none" entry may be noted for some emission sources in this permit's "Applicable Requirements Summary" under the heading of "Monitoring and Testing Requirements" and/or "Recordkeeping Requirements" and/or "Reporting Requirements." Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

## **Unit Summary**

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
10	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
29	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
3	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
B1	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B117EG-B1	30 TAC Chapter 117, Subchapter E, Division 1	No changing attributes.
B2	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B117EG-B2	30 TAC Chapter 117, Subchapter E, Division 1	No changing attributes.
В3	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B112-B3	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
В3	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B117EG-B3	30 TAC Chapter 117, Subchapter E, Division 1	No changing attributes.
В7	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B112-B7	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.

## **Unit Summary**

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
B <sub>7</sub>	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B117EG-B7	30 TAC Chapter 117, Subchapter E, Division 1	No changing attributes.
B8	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	B117EG-B8	30 TAC Chapter 117, Subchapter E, Division 1	No changing attributes.
BLR-7.1	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Dc-BLR7	40 CFR Part 60, Subpart Dc	No changing attributes.
BLR-7.2	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Dc-BLR7	40 CFR Part 60, Subpart Dc	No changing attributes.
BLR-7.3	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Dc-BLR7	40 CFR Part 60, Subpart Dc	No changing attributes.
GRP-BSTACK	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	1, 2	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
T10	STATIONARY TURBINES	N/A	60KKKK-T10	40 CFR Part 60, Subpart KKKK	No changing attributes.
Т8	STATIONARY TURBINES	N/A	60GG-T8	40 CFR Part 60, Subpart GG	No changing attributes.

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
10	EP	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
29	ЕР	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
3	ЕР	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) *** See Periodic Monitoring Summary	None	None

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
B1	EU	B117EG-B1	EXEMPT	30 TAC Chapter 117, Subchapter E, Division 1	§ 117.3003(3) § 117.3003	The provisions of this division, except as specified in §117.3040 and §117.3045 of this title (relating to Continuous Demonstration of Compliance; and Notification, Recordkeeping, and Reporting Requirements), do not apply to each unit that generates electric energy primarily for internal use but that, averaged over the three most recent calendar years, sold less than one-third of its potential electrical output capacity to a utility power distribution system.	None	None	[G]§ 117.3040(j) § 117.3054(a) § 117.3054(a)(5)
B2	EU	B117EG- B2	EXEMPT	30 TAC Chapter 117, Subchapter E, Division 1	§ 117.3003(3) § 117.3003	The provisions of this division, except as specified in §117.3040 and §117.3045 of this title (relating to Continuous Demonstration of Compliance; and Notification, Recordkeeping, and Reporting Requirements), do not apply to each unit that generates electric energy primarily for internal use but that, averaged over the three most recent calendar years, sold less than one-third of its potential electrical output capacity to a utility power distribution system.	None	None	[G]§ 117.3040(j) § 117.3054(a) § 117.3054(a)(5)

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
В3	EU	B112-B3	SO2	30 TAC Chapter 112, Sulfur Compounds	§ 112.9(a)	No person may cause, suffer, allow, or permit emissions of SO2 from any liquid fuel-fired steam generator, furnace, or heater to exceed 440 ppmv at actual stack conditions and averaged over 3-hours.	§ 112.2(a) *** See Periodic Monitoring Summary	§ 112.2(c)	§ 112.2(b)
В3	EU	B117EG- B3	EXEMPT	30 TAC Chapter 117, Subchapter E, Division 1	§ 117.3003(3) § 117.3003	The provisions of this division, except as specified in \$117.3040 and \$117.3045 of this title (relating to Continuous Demonstration of Compliance; and Notification, Recordkeeping, and Reporting Requirements), do not apply to each unit that generates electric energy primarily for internal use but that, averaged over the three most recent calendar years, sold less than one-third of its potential electrical output capacity to a utility power distribution system.	None	None	[G]§ 117.3040(j) § 117.3054(a) § 117.3054(a)(5)
В7	EU	B112-B7	SO2	30 TAC Chapter 112, Sulfur Compounds	§ 112.9(a)	No person may cause, suffer, allow, or permit emissions of SO2 from any liquid fuel-fired steam generator, furnace, or heater to exceed 440 ppmv at actual stack conditions and averaged over 3-hours.	§ 112.2(a) ** See Periodic Monitoring Summary	§ 112.2(c)	§ 112.2(b)

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
B7	EU	B117EG- B7	EXEMPT	30 TAC Chapter 117, Subchapter E, Division 1	§ 117.3003(3) § 117.3003	The provisions of this division, except as specified in §117.3040 and §117.3045 of this title (relating to Continuous Demonstration of Compliance; and Notification, Recordkeeping, and Reporting Requirements), do not apply to each unit that generates electric energy primarily for internal use but that, averaged over the three most recent calendar years, sold less than one-third of its potential electrical output capacity to a utility power distribution system.	None	None	[G]§ 117.3040(j) § 117.3054(a) § 117.3054(a)(5)
B8	EU	B117EG- B8	EXEMPT	30 TAC Chapter 117, Subchapter E, Division 1	§ 117.3003(3) § 117.3003	The provisions of this division, except as specified in §117.3040 and §117.3045 of this title (relating to Continuous Demonstration of Compliance; and Notification, Recordkeeping, and Reporting Requirements), do not apply to each unit that generates electric energy primarily for internal use but that, averaged over the three most recent calendar years, sold less than one-third of its potential electrical output capacity to a utility power distribution system.	None	None	[G]§ 117.3040(j) § 117.3054(a) § 117.3054(a)(5)

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
BLR-7.1	EU	60Dc- BLR7	SO <sub>2</sub>	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.1	EU	60Dc- BLR7	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.1	EU	60Dc- BLR7	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.2	EU	60Dc- BLR7	SO <sub>2</sub>	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.2	EU	60Dc- BLR7	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
BLR-7.2	EU	60Dc- BLR7	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.3	EU	60Dc- BLR7	SO <sub>2</sub>	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.3	EU	60Dc- BLR7	PM	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
BLR-7.3	EU	60Dc- BLR7	PM (OPACITY)	40 CFR Part 60, Subpart Dc	§ 60.40c(a)	This subpart applies to each steam generating unit constructed, reconstructed, or modified after 6/9/89 and that has a maximum design heat input capacity of 2.9-29 megawatts (MW).	None	§ 60.48c(g)(1) § 60.48c(g)(2) § 60.48c(g)(3) § 60.48c(i)	[G]§ 60.48c(a) § 60.48c(j)
GRP- BSTACK	ЕР	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(A) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 30% averaged over a six minute period.	[G]§ 111.111(a)(1)(F) *** See Periodic Monitoring Summary	None	None

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
T10	EU	60KKKK- T10	NOx	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4325 § 60.4333(a)	New turbine firing natural gas with a heat input at peak load greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h must meet the nitrogen oxides emission standard of 150 ng/J of useful output (1.2 lb/MWh).	\$ 60.4340(b)(2)(i) \$ 60.4340(b)(2)(ii) \$ 60.4340(b)(2)(iii) [G]\$ 60.4355(a) [G]\$ 60.4400(a) \$ 60.4400(b) \$ 60.4400(b)(1) \$ 60.4400(b)(4) \$ 60.4400(b)(6) \$ 60.4410	[G]§ 60.4355(a) § 60.4410	§ 60.4375(a) § 60.4380 [G]§ 60.4380(c) § 60.4395
T10	EU	60KKKK- T10	SO <sub>2</sub>	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.	§ 60.4365 § 60.4365(a) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(a)	§ 60.4375(a)
Т8	EU	60GG-T8	SO <sub>2</sub>	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
Т8	EU	60GG-T8	NOx	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(a)(4) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	§ 60.334(a) § 60.334(b) § 60.334(h) § 60.334(i) § 60.334(i) § 60.334(i) § 60.334(j) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(ii) [G]§ 60.334(j)(1)(iii) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(1) § 60.335(b)(2) § 60.335(b)(4) § 60.335(b)(5) § 60.335(b)(9) § 60.335(b)(9)(ii) § 60.335(c)(1)	§ 60.334(a) § 60.334(g) § 60.334(i) § 60.334(i)(2)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)

Additional Monitoring Requirements
Periodic Monitoring Summary27

**Unit/Group/Process Information** 

ID No.: 10

Control Device ID No.: N/A Control Device Type: N/A

Applicable Regulatory Requirement

Name: 30 TAC Chapter 111, Visible Emissions SOP Index No.: R1111

Pollutant: OPACITY Main Standard: § 111.111(a)(1)(C)

**Monitoring Information** 

**Indicator: Opacity** 

Minimum Frequency: Once per month

Averaging Period: Six-minutes

Deviation Limit: 15% Opacity

Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the

deviation limit shall be reported as a deviation.

**Unit/Group/Process Information** 

ID No.: 29

Control Device ID No.: N/A Control Device Type: N/A

**Applicable Regulatory Requirement** 

Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111

Pollutant: OPACITY Main Standard: § 111.111(a)(1)(C)

**Monitoring Information** 

**Indicator: Opacity** 

Minimum Frequency: Once per month

Averaging Period: Six-minutes

Deviation Limit: 15% Opacity

Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the deviation limit shall be reported as a deviation

deviation limit shall be reported as a deviation.

Unit/Group/Process Information	1
ID No.: 3	

Control Device ID No.: N/A | Control Device Type: N/A

**Applicable Regulatory Requirement** 

Name: 30 TAC Chapter 111, Visible Emissions SOP Index No.: R1111

Pollutant: OPACITY Main Standard: § 111.111(a)(1)(C)

**Monitoring Information** 

Indicator: Opacity

Minimum Frequency: Once per month

Averaging Period: Six-minutes

Deviation Limit: 15% Opacity

Periodic Monitoring Text: Opacity shall be monitored, by a certified observer, for at least one, six-minute period in accordance with Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Test Method 9. Any opacity readings above the deviation limit shall be reported as a deviation.

Unit/Group/Process Information				
ID No.: B3				
Control Device ID No.: N/A	Control Device Type: N/A			
Applicable Regulatory Requirement				
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: B112-B3			
Pollutant: SO2	Main Standard: § 112.9(a)			
Monitoring Information				
Indicator: Sulfur Content of Fuel				
Minimum Frequency: quarterly and within 24 hours of any fuel change				
Averaging Period: n/a*				
Deviation Limit: Sulfur Content of Fuel				
Periodic Monitoring Text: Measure and record the sulfur content of the fuel. Any monitoring data above the deviation limit shall be considered and reported as a deviation				

<sup>\*</sup>The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Unit/Group/Process Information				
ID No.: B7				
Control Device ID No.: N/A	Control Device Type: N/A			
Applicable Regulatory Requirement				
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: B112-B7			
Pollutant: SO2	Main Standard: § 112.9(a)			
Monitoring Information				
Indicator: Sulfur Content of Fuel				
Minimum Frequency: quarterly and within 24 hours of any fuel change				
Averaging Period: n/a*				
Deviation Limit: Sulfur Content of Fuel				
Periodic Monitoring Text: Measure and record the sulfur content of the fuel. Any monitoring data above the deviation limit shall be considered and reported as a deviation				

<sup>\*</sup>The permit holder may elect to collect monitoring data on a more frequent basis and calculate the average as specified by the minimum frequency, for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis and shall not be collected and used in particular instances to avoid reporting deviations.

Unit/Group/Process Information				
ID No.: GRP-BSTACK				
Control Device ID No.: N/A	Control Device Type: N/A			
Applicable Regulatory Requirement				
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111			
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(A)			
Monitoring Information				
Indicator: Visible Emissions				
Minimum Frequency: once per quarter				
Averaging Period: n/a				
Deviation Limit: 30% Opacity				

Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.

If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying applicable requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation.

	Permit Shield	
Permit Shield		4

#### **Permit Shield**

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination	
ID No.	Group/Inclusive Units			
B1	N/A	30 TAC Chapter 112, Sulfur Compounds	Boiler does not combust liquid or solid fossil fuel.	
B1	N/A	40 CFR Part 60, Subpart D	Boiler was constructed before 08/17/71.	
B1	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.	
B10	N/A	30 TAC Chapter 112, Sulfur Compounds	Boiler does not combust liquid or solid fossil fuel.	
B10	N/A	40 CFR Part 60, Subpart Da	Boiler heat input less than 250 MMBtu/hr.	
B10	N/A	40 CFR Part 60, Subpart Db	Boiler heat input less than 100 MMBtu/hr.	
B10	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.	
B2	N/A	30 TAC Chapter 112, Sulfur Compounds	Boiler does not combust liquid or solid fossil fuel.	
B2	N/A	40 CFR Part 60, Subpart D	Boiler was constructed before 08/17/71.	
B2	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.	
В3	N/A	40 CFR Part 60, Subpart D	Boiler was constructed before 08/17/71.	

# **Permit Shield**

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination		
ID No.	Group/Inclusive Units				
В3	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.		
B7	N/A	40 CFR Part 60, Subpart D	Boiler was constructed before 08/17/71.		
B7	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.		
B8	N/A	30 TAC Chapter 112, Sulfur Compounds	Boiler does not combust liquid or solid fossil fuel.		
B8	N/A	40 CFR Part 60, Subpart Da	Boiler heat input less than 250 MMBtu/hr.		
B8	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.		
T10	N/A	30 TAC Chapter 112, Sulfur Compounds	Boiler does not combust liquid or solid fossil fuel.		
T10	N/A	40 CFR Part 60, Subpart GG	Turbine was constructed after 02/18/2005.		
T10	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.		
Т8	N/A	40 CFR Part 72	Energy sales less than 1/3 generation capacity.		

New Source Review Authorization References	
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New Source Review Authorization References by Emission Unit3	8

# **New Source Review Authorization References**

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits					
PSD Permit No.: PSDTX621 Issuance Date: 04/03/2014					
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.					
Authorization No.: 48794	Issuance Date: 11/26/2013				
Authorization No.: 80440	Issuance Date: 01/21/2011				
Authorization No.: 9322	Issuance Date: 04/03/2014				
Permits By Rule (30 TAC Chapter 106	) for the Application Area				
Number: 106.183	Version No./Date: 09/04/2000				
Number: 106.263	Version No./Date: 11/01/2001				
Number: 106.371	Version No./Date: 09/04/2000				
Number: 106.373	Version No./Date: 09/04/2000				
Number: 106.452	Version No./Date: 09/04/2000				
Number: 106.454	Version No./Date: 11/01/2001				
Number: 106.472	Version No./Date: 09/04/2000				
Number: 106.473	Version No./Date: 09/04/2000				
Number: 51	Version No./Date: 07/20/1992				

# **New Source Review Authorization References by Emissions Unit**

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
10	STACK FOR T10/B10	80440
1	STACK FOR B1 & B2	48794
29	STACK FOR BOILER NO. 8 AND GAS TURBINE NO. 8	9322, PSDTX621
2	STACK FOR B3	48794
3	STACK FOR B7	48794
B10	BOILER 10	80440
B1	BOILER NO. 1	48794
B2	BOILER NO. 2	48794
В3	BOILER NO. 3	48794
B7	BOILER NO. 7	48794
B8	BOILER NO. 8 (AUXILIARY BURNER)	9322, PSDTX621
BLR-7.1	BOILER 7.1	106.183/09/04/2000
BLR-7.2	BOILER 7.2	106.183/09/04/2000
BLR-7.3	BOILER 7.3	106.183/09/04/2000
T10	TURBINE 10	80440
Т8	GAS TURBINE NO. 8	9322, PSDTX621

	Appendix A	
Acronym List	••••••	40

# **Acronym List**

The following abbreviations or acronyms may be used in this permit:

ACEM	actual cubic feet per minute
	alternate means of control
	Acid Rain Program
ANT	Acid Kaili Flogram American Society of Testing and Materials
	Beaumont/Port Arthur (nonattainment area)
CD	control device
COMS	continuous opacity monitoring system
CVS	closed-vent system
D/FW	Dallas/Fort Worth (nonattainment area)
DR	Designated Representative
ElP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
	grandfathered
gr/100 scf	grains per 100 standard cubic feet
	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
	hydrogen sulfide
	identification number
MMBtu/hr	pound(s) per hour Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
	nonattainment
	not applicable
	National Allowance Data Base
	nitrogen oxides
	New Source Performance Standard (40 CFR Part 60)
	New Source Review
	Office of Regulatory Information Systems
Ph	lead
	Permit By Rule
	particulate matter
nnmy	parts per million by volume
PSD	prevention of significant deterioration
	Texas Commission on Environmental Quality
	total suspended particulate
	true vapor pressure
	United States Code
VOC	volatile organic compound

Appendix B
Major NSR Summary Table42

# **Major NSR Summary Table**

Permit Number: 9322 and PSDTX621		Issuance Date: April 3, 2014					
Emission	Source	Air Contaminant	Emission	n Rates * (4)	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY** (5)	Spec. Cond.	Spec. Cond.	Spec. Cond.
EPN 29	Natural Gas Fired	NOx	184.96	654.81	2,3,4,5,6,8	2, 3, 4, 5, 6, 8, 12	2, 4
	Cogeneration Stack,	CO	50.50	160.87			
	(Turbine 8 & Boiler 8)	VOC	4.38	13.63			
		SO2	0.10	0.27			
		PM	5.34	17.15			
EPN 30	Fugitive Emissions (6)	VOC	0.70	3.10			

#### Footnotes:

- (1) Emissions point identification either specific equipment designation or emission number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC, NOx, SO2, PM, PM10, PM2.5, CO
- (4) Emission rates are based on a maximum design turbine rating of 45 megawatts and the facilities are limited by the following maximum operating schedule: Turbine 8: 3,940 MMscf/yr Boiler8: 763 MMscf/yr. The allowable emissions rates include planned startup, shutdown and optimization.
- (5) Compliance with annual emissions rates limits (tons per year) is based on a 12 month rolling period.
- (6) Emissions rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AIR QUALITY PERMIT

A Permit Is Hereby Issued To

The University of Texas at Austin

Authorizing the Construction and Operation of

Hal C Weaver Power Plant

Located at Austin, Travis County, Texas

Latitude 30° 17′ 12″ Longitude 97° 44′ 8″



Permits: 9322 and	mits: 9322 and PSDTX621		
Revision Date:	April 2 2014	`\)	

Renewal Date: November 17, 2019

For the Commission

- 1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
- 2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
- 3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
- 4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
- 5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

Revised (10/12)

- 6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
- 7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
- 8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
- 9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
- 10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
- 11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
- 12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
- 13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
- 14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Revised (10/12)

# **Special Conditions**

#### Permit Numbers 9322 and PSDTX621

1. This permit authorizes the operation of air emission sources associated with a cogeneration facility located at 215 East 24<sup>th</sup> Street, Austin, Travis County. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and those sources are limited to the emission limits and other conditions specified in the attached table and other conditions specified in this permit. The annual rates are based on any consecutive 12 month period. (04/14)

# **Federal Applicability**

- 2. This facility shall comply with all applicable requirements of Environmental Protection Agency (EPA) Regulations on Standards of Performance for New Stationary Sources (NSPS) promulgated for Stationary Gas Turbines in Title 40 Code of Federal Regulations Part 60 (40 CFR 60):
  - A. Subpart A: General Provisions.
  - B. Subpart GG: Standards of Performance for Stationary Gas Turbines.

## **Opacity (04/14)**

- 3. Opacity of emissions from the Waste-Heat Boiler Stack (Emission Point No. [EPN] 29) shall not exceed 20 percent with one six-minute average opacity per hour. Limitations are in accordance with the limitations and conditions specified in Title 30 Texas Administrative Code (30 TAC) § 111.111(a)(1)(B). The permit holder shall demonstrate compliance with this Special Condition in accordance with the following procedures:
  - A. Visible emission observations shall be conducted and recorded at least once during each calendar quarter while the facilities are in operation, unless the emission unit is not operating for the entire calendar quarter.
  - B. This determination shall be made by first observing for visible emissions while each facility is in operation. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70 degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for all three emission points. A certified opacity reader is not required for these visible emission observations.
  - C. If visible emissions are observed from an emission point, then the opacity shall be determined and documented within 24 hours for that emission point using 40 CFR Part 60, Appendix A, Reference Method 9.
  - D. If the opacity limitations of this Special Condition are exceeded, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation.

# **Initial Compliance**

- 4. The holder of this permit shall perform stack sampling and other testing as required by the Texas Commission on Environmental Quality (TCEQ) Executive Director to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Waste-Heat Boiler Stack (EPN 29). The initial performance testing was performed in November of 1988, December of 1988, March of 1989, and November of 1989.
  - A. The TCEQ Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviations from TCEQ or EPA sampling procedures shall be made available to the TCEQ at, or prior to, the pretest meeting. Alternate/equivalent procedure proposals for NSPS testing must have EPA approval. The holder of this permit is also responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

The notice to the TCEQ Regional Office shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- B. Air contaminants emitted from EPN 29 to be tested for include (but are not limited to) nitrogen oxides ( $NO_x$ ), carbon monoxide (CO), and particulate matter (PM) when firing the turbine and duct burner on natural gas; and  $NO_x$ , CO, sulfur dioxide, and PM when firing the turbine and duct burner on fuel oil.
- C. Sampling shall occur within 60 days after the facility achieves maximum production but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Executive Director of the TCEQ.
- D. Two copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Austin Regional Office.
One copy to each appropriate local air pollution control program. (04/14)

## 5. NO<sub>x</sub> Emission Limits

A. When the gas turbine is fired on natural gas, the maximum allowable concentration of NO<sub>x</sub> in the stack gases shall be the NSPS for NO<sub>x</sub>, as calculated in 40 CFR § 60.332(a)(1), in effect on the original date of issuance of this permit.

- B. Compliance of the gas turbine with the concentration limit for  $NO_x$  set forth in Special Condition No. 5.A shall be determined when the duct burner is not operating and shall be determined by using EPA Reference Method 20 in 40 CFR 60, Appendix A. The  $NO_x$  emission level measured by Reference Method 20 shall be adjusted to ISO standard day conditions as specified in 40 CFR 60.335(a)(1)(i). The adjusted  $NO_x$  emission level shall be used to determine compliance with Special Condition No. 5.A.
- C. Compliance with Special Condition No. 5.A and B shall be demonstrated within 60 days after the facility covered by this permit achieves maximum production (but not later than 180 days after initial start-up of the facility) and at other such times as may be required by the Executive Director of the TCEQ.
- D. The steam-to-fuel ratio necessary to comply with the concentration limits specified in Special Condition No. 5.A shall be determined during the initial performance test required in Special Condition No. 5.C by measuring  $NO_x$  emissions in accordance with Special Condition No. 5.B. This steam-to-fuel ratio shall be determined during operation of the turbine at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the turbine, including the minimum point in the range and peak load. All loads shall be corrected to  $59^{\circ}F$ , 60 percent relative humidity, and 14.7 pounds per square inch absolute pressure using the appropriate equations supplied by the turbine manufacturer.

# **Steam Injection and Continuous Monitoring**

6. The holder of this permit shall inject steam into the combustion chamber of the gas turbine at the steam-to-fuel ratio established by the testing required in Special Condition No. 5.D. The permit holder shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of steam to fuel being fired in the turbine. This system shall be accurate to ±5.0 percent and shall be approved by the Executive Director of the TCEQ. These records shall be maintained for five years and shall be made available on request to representatives of the TCEQ or any local air pollution control program having jurisdiction. The five-year record retention requirement does not apply to records generated before April 3, 2012. (04/14)

# **Fuel Requirements**

- 7. Natural gas fired in the gas turbine and waste-heat boiler shall contain no more than 3.2 grains of total sulfur per 100 standard cubic feet of gas.
- 8. Upon request by the Executive Director of the TCEQ or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel utilized in this facility or shall allow air pollution control agency representatives to obtain a sample for analysis.
- 9. Sampling ports and platform(s) shall be incorporated into the design of the Waste-Heat Boiler Stack (EPN 29) according to the specifications set forth in the attachment entitled

"Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the Executive Director of the TCEQ.

#### Maintenance, Startup, and Shutdown (MSS) (04/14)

- 10. The emissions from planned MSS activities are reflected in the MAERT. The emissions will be minimized by the following:
  - A. Facility and air pollution control equipment will be operated in a manner consistent with good air pollution control, safe operating practices, and protection of the facility.
  - B. The duration of operation of the cogeneration unit (EPN 29) during planned MSS activities will be minimized and applicable monitoring systems will be operated during such activities.

## Recordkeeping (04/14)

- 11. A copy of this permit shall be kept at the plant site and made available at the request of personnel from the TCEQ or any other air pollution control agency having jurisdiction.
- 12. The following written records shall be maintained at the plant site by the holder of this permit on a five-year rolling retention basis, and shall be made available to designated representatives of the TCEQ, the EPA, or any local air pollution control program having jurisdiction upon request.
  - A. Operating records required by Special Condition No. 6 for each gas turbine.
  - B. Records of visible emission and opacity observations pursuant to Special Condition No. 3.

Date: April 3, 2014

#### Attachment A

#### Permit Nos. 9322 and PSDTX621 Additional Authorizations

Authorization
30 TAC §106.263

## Notes:

- 1. Includes, but is not limited to, baghouse filters, ash silo/transfer filters, coal handling filters, process-related building air filters, and combustion turbine air intake filters.
- 2. Includes pre-heater basket handling and maintenance, refractory change-out, fan maintenance and balancing, damper, air heater, and soot blower maintenance, and any other general boiler maintenance that does not exceed the worst-case emissions representation in the application.
- 3. Includes, but is not limited to, management by vacuum truck/dewatering of materials in open pits and ponds, and sumps, tanks and other closed or open vessels. Materials managed include water and sludge mixtures containing miscellaneous VOCs such as diesel, lube oil, and other waste oils.
- 4. Includes, but is not limited to, explosive blasting, clinker shooting, and other boiler deslagging activities; does not include dry abrasive blasting that may occur in boilers.
- 5. Includes, but is not limited to, (i) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters and screens in natural gas, fuel oil, diesel oil, ammonia, lube oil, and gasoline service, (ii) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes, transmission service, and hydraulic system service, and (iii) off-line NO<sub>x</sub> control device maintenance.

Date: April 3, 2014

#### Attachment B

# Permit Nos. 9322 and PSDTX612 Non-ILE Planned Maintenance Activities

Planned Maintenance Activity	EDN	Emissions				
Flamled Maintenance Activity	EPN	VOC	$NO_x$	CO	PM	$SO_2$
Combustion optimization <sup>1</sup>	29	X	X	X	X	X

#### Notes:

1. Includes, but is not limited to, (i) leak and operability checks (e.g., turbine over-speed tests, troubleshooting), (ii) balancing, and (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances. These emissions are included in the MAERT.

Date: April 3, 2014

#### **Emission Sources - Maximum Allowable Emission Rates**

#### Permit Numbers 9322 and PSDTX621

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

#### Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name	Emission Rates (4)		
		(3)	lbs/hour	TPY (5)	
29	Natural Gas Fired Cogeneration Stack,	NO <sub>x</sub>	184.96	654.81	
	(Turbine 8 and Boiler 8)	СО	50.50	160.87	
		VOC	4.38	13.63	
		SO <sub>2</sub>	0.10	0.27	
		PM	5.34	17.15	
30	Fugitive Emissions (6)	VOC	0.70	3.10	

- (1) Emission point identification either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including  $PM_{10}$  and  $PM_{2.5}$ , as

represented

 $PM_{10}$  - total particulate matter equal to or less than 10 microns in diameter, including  $PM_{2.5}$ , as

represented

 $PM_{2.5}$  - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

(4) Emission rates are based on a maximum design turbine rating of 45 megawatts and the facilities are limited by the following maximum operating schedule:

Turbine 8: 3,940 MMscf/yr Boiler 8: 763 MMscf/yr

The allowable emission rates include planned startup, shutdown, and optimization.

- (5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: April 3, 2014	
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Project Number: 198533